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LTR 2833604

<p>2004-074197/08</p> <p>RHODIANYL SNC</p> <p>2001.12.17 2001-016322(+2001FR-016322) (2003.06.20) C08L 77/06, C08G 69/06, C08J 5/18 (C08L 77/06, 77/00)</p> <p>Polymer composition used for injection molding contains a thermoplastic polymer matrix and a rheology modifier comprising a functionalized, hyperbranched copolyamide</p> <p>C2004-030577</p> <p>Addnl. Data: VARLET J, CLEMENT F, TOURAUD F, ROCHAT S, SCHERBAKOFF N, SASSI J F 2002.01.17 2002FR-000545</p>	<p>RHOD 2001.12.17</p> <p>*FR 2833604-A1</p> <p>A(5-F1E) F(1-D3)</p> <p>monomer of formula (III) and a chain limiting monomer(s) of formula (IV), where at least 50% of the terminal groups are functionalized by R²:</p> <p>ARB_f(I) A'R'B'(II) R'(B'')_n(III) R²A''(IV)</p> <p>A, A', A'', B, B' and B'' = reactive groups;</p> <p>R and R' = hydrocarbon group;</p> <p>f = at least 2, preferably 2-10;</p> <p>R¹ and R² = hydrocarbon group; and</p> <p>n = at least 1, preferably 1-100.</p>	<p>NOVELTY</p> <p>Polymer composition contains a rheology modifier comprising a functionalized, hyperbranched copolyamide obtained by reacting a monomer(s), optionally a spacing monomer, optionally a core monomer and a chain limiting monomer(s)</p>	<p>USE</p> <p>For producing articles by molding, injection molding or extrusion to give threads, fibers, films and filaments (all claimed).</p>
<p>DETAILED DESCRIPTION</p> <p>Polymer composition comprises a thermoplastic polymer matrix and a rheology modifier comprising a functionalized, hyperbranched copolyamide obtained by reacting a monomer(s) of formula (I), optionally a spacing monomer of formula (II), optionally a core</p>	<p>ADVANTAGE</p> <p>The fluidity, transparency and mechanical properties, particularly FR 2833604-A+</p>		

impact resistance, are good.

SPECIFIC COMPOUNDS

Preferred Materials: In the hyperbranched copolyamide, (I) is 5-aminoisophthalic acid, 6-aminoundecanoic acid, 3-aminopimelic acid, aspartic acid, 3,4-diaminobenzoic acid and/or 3,5-diaminobenzoic acid, (II) is eta-caprolactam, aminocaproic acid, p- or m-aminobenzoic acid, amino-11-undecanoic acid, lauryl lactam or its aminoacid and/or amino-12-dodecanoic acid, (III) is 1,3,5-benzene tricarboxylic acid, 2,2,6,6-tetra-(beta-carboxyethyl)cyclohexanone, 2,4,6-tri-(aminocaproic acid)-1,3,5-triazine and/or 4-aminomethyl-1,8-octanediamine and (IV) is n-hexadecylamine, n-octadecylamine, n-dodecylamine and/or benzylamine (claimed).

EXAMPLE

Polyamide 66 mixed with 5 (0) % hyperbranched copolyamide prepared from 1:6:6:9 tricarboxylic or trimesoic benzene acid, 5-aminoisophthalic acid, η -caprolactam and n-hexadecylamine had a pack pressure of 25.5 (35.4) bar.

TECHNOLOGY FOCUS

Polymers - Preferred Materials: The matrix is preferably nylon 6,

nylon 66, nylon 4, nylon 11, nylon 2, polyamide 4-6, 6-10, 6-36, 12-12 and/or their copolymers (claimed).

Preferred Composition The composition contains 0.1-50, especially 210 wt.% hyperbranched copolyamide (claimed).
(36pp2522Dwg No.0/3)

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